Complete Summary

GUIDELINE TITLE

Use of systemic therapy in women with recurrent ovarian cancer – development, methods and clinical practice guideline.

BIBLIOGRAPHIC SOURCE(S)

Elit L, Zitzelsberger L, Fung-Kee-Fung M, Brouwers M, Graham ID, Browman G, Hoskins P, Lau S, Ghatage P, Society of Gynecologic Oncologists of Canada (GOC). Use of systematic therapy in women with recurrent ovarian cancer - development, methods and clinical practice guideline. Ottawa (ON): Society of Gynecologic Oncologists of Canada (GOC); 2006 Oct. Various p. [21 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Recurrent epithelial ovarian cancer

GUIDELINE CATEGORY

Management
Treatment

CLINICAL SPECIALTY

Obstetrics and Gynecology
Oncology
Pharmacology
Radiology

INTENDED USERS

Health Care Providers
Pharmacists
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To provide guidance for physicians in Canada who treat women with ovarian cancer, i.e., gynecologic oncologists and medical oncologists

TARGET POPULATION

Women with recurrent epithelial ovarian cancer, including platinum-sensitive, platinum-resistant, and platinum-refractory women

INTERVENTIONS AND PRACTICES CONSIDERED

1. Participation in clinical trials
2. Platinum-sensitive disease
    - Retreatment with platinum based combination or monotherapy
    - Other single-agent therapy (following platin toxicity)
3. Platinum-resistant disease
    - Non-platinum-based therapy: etoposide, gemcitabine, liposomal doxorubicin, taxanes, topotecan, vinorelbine
4. Platinum-refractory disease
    - If patient progresses while on platinum analogue, switch to different drug or symptom management alone
5. Decision to stop chemotherapy
    - Implementation of best supportive care, including appropriate pain relief

MAJOR OUTCOMES CONSIDERED

- Response rate
- Drug toxicities
- Quality of life
- Survival (overall and progression free)

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The methods team was given suggestions by the organizing committee on existing guidelines. Two were identified: a draft Cancer Care Ontario (CCO) guideline and a Scottish International Guidelines Network (SIGN) guideline. The methods team also searched MEDLINE, the World Wide Web (using Google), the Canadian Coordinating Office on Health Technological Assessment website, the Cochrane Collaboration website, guideline clearinghouses (National Guideline Clearinghouse, Canadian Medical Association, Guidelines International Network), known guideline developers' websites (e.g., National Institute of Clinical Excellence UK; Centre for Reviews and Dissemination UK; Ministry of Health Singapore; World Health Organization; Standards, Options and Recommendations France; New Zealand Guidelines Group, National Health and Medical Research Council Australia; Society of Gynecologic Oncologists USA, Agency for Health Research and Quality USA; Department of Defense USA) as well as references of published guidelines for guidelines on recurrent ovarian cancer. The terms used for MEDLINE searches were purposefully broad: practice guidelines, reviews, standards, consensus, and ovarian neoplasms. Those used for the WWW search included ovarian cancer, recurrent ovarian cancer, practice guidelines, and clinical practice guidelines. The following inclusion and exclusion criteria were used: only guidelines that were dated from 1995–2005 and published in English or French were considered. Guidelines without references and those authored by a single individual (not on behalf of a group) were not considered.

Four guidelines were retrieved. The CCO draft guideline was the only guideline that specifically concerned recurrent ovarian cancer. The SIGN guideline included a section on recurrent ovarian cancer within a larger guideline on ovarian cancer management. The BC Cancer Agency management protocol for ovarian cancer was included as it is a widely used protocol. The National Health and Medical Research Council (Australia) guideline included a small section on recurrence. Panel members were also provided with the following supporting documents: an National Cancer Institute Physician Data Query (USA) with a section on recurrence, a National Institute on Clinical Excellence (UK) document on Paclitaxel, Pegylated Liposomal Doxorubicin Hydrochloride and Topotecan for second-line or subsequent treatment, and two care paths (National Comprehensive Cancer Network, U.S.A. and MD Anderson Cancer Center, U.S.A.).

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Guideline Assessment—Quality and Content

Panel members were asked to appraise guidelines using the AGREE (Appraisal of Guidelines for Research and Evaluation) instrument (www.agreetrust.org), and review all other supporting documentation. They were given two weeks to appraise the guidelines and return their AGREE scores to the resource team. As well, an assessment of currency of retrieved guidelines was undertaken by the methods team.

Scores were returned by six panel members. Scores for the dimensions of the AGREE instrument ranged from 41 to 98% for the Cancer Care Ontario (CCO) guideline, from 57 to 81% for the Scottish International Guidelines Network (SIGN) guideline, from 17 to 36% for British Colombia (BC) Cancer Agency management protocol, and from 33 to 75% for the National Health and Medical Research Council (NHMRC) guideline (see Figure A1 in the original guideline document). With respect to overall assessment, the CCO guideline was most strongly recommended, followed by the SIGN guideline (see Table A1 in the original guideline document).

As well, an assessment of currency of retrieved guidelines was undertaken by the methods team. Guideline currency was not an issue with respect to the clinical practice guidelines reviewed by panel members. The CCO guideline is still in draft format, and the BC Cancer Agency management protocol is a living document. The status of both the SIGN and NHMRC guidelines is listed as "current" on their respective websites. The SIGN guideline was published in October 2003, and the National Health and Medical Research Council guideline was published in 2004.

Preparation of the Recommendations Matrix

In order to easily identify similarities and differences in individual guideline recommendations, the methods team compiled the recommendations from each of the guidelines into a Recommendations Matrix (see Table A2 in the original guideline document). Where possible, the level of evidence associated with a particular recommendation was provided; otherwise this information was left blank.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

In order to facilitate the process of guideline adaptation, the Society of Gynecologic Oncologists of Canada (GOC) chose to use a guideline adaptation process developed by the Canadian Strategy for Cancer Control (CSCC) Clinical Practice Guidelines Action Group (CPG-AG) in conjunction with leading researchers in the field of guideline adaptation. The following describes the process followed by the panel in deriving guidance on systemic therapy for women with recurrent ovarian cancer.

Composition of the Multidisciplinary Panel

The adaptation/adoption process took part in two phases. A larger group met initially to begin the process, and a smaller sub-panel followed the progress made by the larger group through to completion of the guideline.

The initial multidisciplinary panel invited to participate in the adaptation process was organized by the Society of Gynecologic Oncologists of Canada. The panel was populated with representation from and partnership with the Clinical Practice Guidelines Action Group of the Canadian Strategy for Cancer Control; Gynecology Oncology Guideline Panels from provincial cancer agencies such as Ontario (Program in Evidence-based Care), Quebec, BC; the Society of Obstetricians and Gynaecologists of Canada; and gynecological oncologists from British Columbia, Alberta, Manitoba, Ontario, Québec, New Brunswick and Newfoundland. Members represented experts in the clinical, research, methodological, and knowledge translation arenas. Fourteen clinical specialists and four methodologists were involved in the meeting.

All of the members involved on the smaller sub-group had also participated in the initial process with the exception of one oncologist who was added to represent the experience of practitioners in Quebec. Members of the sub-group were selected to be representative of regional diversity across Canada. With the exception of one physician (a medical oncologist), the remainder were gynecologic oncologists. In total, six clinical specialists and one methodologist were involved in the completion of the guideline.

Customization of Guidelines for Local Use

Initial Panel Meeting – March 2005

The panel members convened for a half day workshop. The Appraisal of Guidelines for Research and Evaluation (AGREE) scores for each of the six dimensions by guideline were presented in a graphical format. As well, the overall assessment scores were compiled into a table allowing comparison between Clinical Practice Guidelines (CPGs). While the AGREE scores provided panel members with a sense of quality of development as reported in the guidelines, discussion focused mainly on the individual recommendations from the guidelines. As the panel felt they could not adopt any one guideline in its entirety, the discussion followed the topics as presented in the recommendations matrices, beginning with general statements, platinum sensitive disease and moving through to platinum resistant disease.

At the end of the meeting, a list of tentative recommendations was drafted, and a decision made that a smaller sub-panel would meet to further discuss and refine potential recommendations.

Second Panel Meeting – December 2005

A teleconference meeting of the sub-group was convened nine months after the initial meeting. A quick search had been conducted prior to the call to identify any possible new guidelines, systematic reviews, or health technology assessments that had been published during the preceding nine months. The National Institute for Health and Clinical Excellence (NICE) health technology assessment which was a draft document at the time of the initial meeting had since been officially published. Otherwise no new documents were found.

Six physicians and one methodologist were involved in the second meeting. One of the oncologists who had not been involved in the initial process, however, had read all the documentation and appraised the guidelines using the AGREE to prepare for the meeting. In the initial meeting, the National Health and Medical Research Council (NHMRC) guideline was used as supporting material as its section on recurrence did not add much to that already published in the more extensive guidelines. For the second meeting, panel members were asked to rate the quality of the NHMRC guideline using the AGREE instrument – mainly to reacquaint them with the process and the material. Three members completed the instrument (see Figure A1 and Table A1 in the original guideline document).

Raw AGREE scores, summary AGREE graphs, guidelines and supporting material, and the recommendations matrices were provided to the panel members prior to the teleconference call.

The chair began the call with a review of the process and of the draft statements completed at the end of the initial meeting. The panel members then decided to work from this initial set of statements and the recommendations matrix to derive the final list of recommendations. The panel decided that for both platinum-sensitive and platinum-resistant disease explanatory paragraphs needed to be attached to the recommendations. These explanations represent the result of discussions by the panel on various associated issues. Based on these two meetings, a draft guideline was produced, edited and then circulated to all the members of the panels for feedback and approval prior to gathering feedback from a larger audience.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

External Review

Feedback on the draft recommendations was sought from 165 practitioners who treat ovarian cancer from across Canada.

Methods

The draft guideline, a cover letter from the president of the Society of Gynecologic Oncologists of Canada (GOC) and a survey were mailed to practitioners. A reminder was sent approximately one month after the mailing of the initial package. The survey asked for comments on the guideline and also contained items evaluating the methods used in the drafting of the guideline, whether the recommendations are applicable in the practitioner's context, whether the recommendations should be approved as a guideline, and whether the practitioner would use the guideline in his or her practice.

Feedback

The overall response rate was 37% (see Table A3 in the original guideline document). Responses were received from across Canada. The main respondent group was gynecologic oncologists (62.5%), followed by medical oncologists (25%), radiation oncologists and internal medicine practitioners (3% each), and finally obstetricians/gynecologists and psychosocial oncology (1% each).

Comments on the draft guideline were received from 29 of the respondents. Half of these represented general comments, the other half were suggestions for changes to the document. Of the suggestions, eight were addressed in the addition of a section entitled "Scope of the guideline" clarifying the purview of the guideline. Three reviewers brought to the attention of the panel the recent publication of an article where previously only the abstract was available. Other suggestions resulted in the addition of supporting evidence to the document, most references for Phase II trial of gemcitabine, etoposide and vinorelbine, and a listing of currently active Phase 3 trials. An addition was made to only one recommendation, 2.2, in which the long treatment free interval was further clarified to be "of at least one year".

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

1.0 General Statements

1.1 Each patient is unique in her disease. Patients must be considered as a whole when making treatment recommendations. The basic principle is to use the most effective regimen or single agent. If the alternatives are equally effective, then choose treatment based upon toxicity, convenience, and availability.

1.2 Whenever clinical trials are available, all patients should be offered participation in these trials.

1.2a Systemic therapy for recurrent ovarian cancer is not curative.

1.2b The goals of treatment should be to improve quality of life (or symptom free interval or symptom intensity), or increase the progression free interval.

1.3 Women can be subdivided into three groups predictive of response to further platinum analogues: platinum-refractory (their cancer progresses upon treatment) who will not respond to platins; platinum-resistant (cancer recurs objectively within 6 months of completing treatment)—they have a 10% response rate to further platins; and platinum-sensitive (recurs more than 6 months after completing treatment)—they have a 30% predicted response rates with platinum retreatment. These latter two definitions are arbitrary and merely reflect an artificial cutpoint chosen to best delineate higher and lower response rates to subsequent treatment.

1.4 Repeated courses of chemotherapy can be effective in selected patients. As a principle, re-utilize the previous effective drug(s) until progression, (see section 1.1 above for principles) or undue toxicity adversely impacting quality of life or treat for a defined number of cycles.

2.0 Platinum Sensitive Disease

2.1 Whenever clinical trials are available, all patients should be offered participation in these trials.

2.2 Patients who experience a long treatment free interval of at least one year after exposure to platinum based chemotherapy should have the opportunity for retreatment with either platinum based combination or monotherapy. Platinum based combination therapy should be considered in these patients.

2.3 Single agent platinum therapy is preferable for those patients who have experienced significant toxicities (unless the platin was the responsible agent).

2.4 If a platinum compound is not warranted due to toxicity, then choice of systemic agent should be based on their toxicity profile, ease of administration, and availability.

3.0 Platinum Resistant Disease

3.1 Whenever clinical trials are available, all patients should be offered participation in these trials.

3.2 In a setting where clinical trials are not available or not appropriate, there are many treatment options which have shown modest response rate but their benefit over best supportive care has not been studied in clinical trials.

3.3 Drugs with proven efficacy in this setting include etoposide (Naumann et al., 1997; Rose et al., 1998; Kuhn et al., 1996), gemcitabine (Shapiro et al., 1996;

Kaufmann & von Minckwitz, 1997; Coenen et al., 2000; von Minckwitz et al., 1999), liposomal doxorubicin (Muggia et al., 1997; Medi-View Express Report, 1999; Gordon et al., 2000), taxanes (Markman et al., 2000; Markman et al., 2002), topotecan (Creemers et al., 1996; Bookman et al., 1998; Hochster et al., 1999; Malmstrom, Sorbe, & Simonsen, 1996; Swisher et al., 1997; Markman et al., 1999), or vinorelbine (Burger et al., 1999; Bajetta et al., 1996).

See Tables 1, 2, and 3 and list of chemotherapeutic agents in the original guideline document, which have been assessed in randomized controlled trials (RCTs) in patients who are platinum resistant. The end points of effectiveness (response rate [RR], Survival, and toxicity are outlined.

4.0 Platinum Refractory Disease

4.1 Whenever clinical trials are available, all patients should be offered participation in these trials.

4.2 Patients who progress while upon a platin analogue should be switched to another drug (or to symptom management alone) following principles articulated in section 1.1 above.

5.0 Stopping Chemotherapy

As a patient is treated with repeated regimens of chemotherapy, there may be diminishing benefits in terms of duration and degree of response. There is a single institution Canadian study (Hoskins & Le, 2005) which has shown that survival is less than 6 months when the length of interval between the two preceding relapses is less than 12 months from the 1 to 2nd relapse and less than 6 months from the 1st to 3rd, or 2nd to 4th and so on. Thus, patients and their support network need to be apprised of the situation and the purpose of further interventions. Best supportive care based on the patient's current presentation (i.e., pain then appropriate pain relief) should always be an option.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate use of systemic therapy in women with recurrent ovarian cancer to improve care, quality of life, and survival

POTENTIAL HARMS

Drug toxicity

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- Care has been taken in the preparation of the information contained in this document. Nonetheless, any person seeking to apply or consult the practice guideline is expected to use independent medical judgments in the context of individual clinical circumstances or seek out the supervision of a qualified clinician. The Society of Gynecologic Oncologists of Canada makes no representation or warranties of any kind whatsoever regarding their content or use or application and disclaims any responsibility for their application or use in any way.
- This guideline question raises a number of relevant topics which are either beyond the scope of this guideline, or for which no data exist. This guideline does not address such topics as the sequencing of chemotherapeutic agents, when to stop systemic therapy, definition of recurrent disease such as rising CA125 versus radiologic or clinical progression, the role of secondary surgical debulking, and the management of complications such as allergic reactions. Although these are important concerns in the care of patients with recurrent ovarian cancer, they need to be addressed in a different forum. Cost was not considered in this guideline as there are no cost effectiveness trials.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

This document represents a unique collaboration with national input and practitioner feedback. This should lead to discussions at the provincial level regarding care for these patients.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Elit L, Zitzelsberger L, Fung-Kee-Fung M, Brouwers M, Graham ID, Browman G, Hoskins P, Lau S, Ghatage P, Society of Gynecologic Oncologists of Canada (GOC). Use of systematic therapy in women with recurrent ovarian cancer - development, methods and clinical practice guideline. Ottawa (ON): Society of Gynecologic Oncologists of Canada (GOC); 2006 Oct. Various p. [21 references]

ADAPTATION

The guideline was adapted from the following resources:

- Fung Kee Fung M, Elit L, Hirte H, Rosen B, Chambers A, and members of the Gynecology Cancer Disease Site Group. Draft Guideline: Optimal chemotherapy treatment for women with recurrent ovarian cancer. Practice Guideline Report #4-3 version 2.2004. (www.cancercare.on.ca)
- Scottish Intercollegiate Guidelines Network. SIGN #75: Epithelial ovarian cancer. A national clinical guideline. Scottish Intercollegiate Guidelines Network. 2003. (www.sign.ac.uk)
- BC Cancer Agency. Cancer Management Guidelines: Ovary – Epithelial Carcinoma. (www.bccancer.bc.ca)
- The Australian Cancer Network and National Breast Cancer Centre. Clinical practice guidelines for the management of women with epithelial ovarian cancer. 2004 National Breast Cancer Centre, Camperdown, NSW. (www.nhmrc.gov.au/publications)
- National Institute of Health and Clinical Excellence, UK. Paclitaxel, pegylated liposomal doxorubicin hydrochloride and topotecan for second line or subsequent treatment of advanced ovarian cancer. Review of Technology Appraisal Guidance 28, 45 and 55. Technology Appraisal 91. May 2005. (www.nice.org.uk/TA091)
- National Cancer Institute, U.S. National Institutes of Health. Ovarian Epithelial Cancer (PDQ) Treatment. June 16, 2005. (www.nci.nih.gov)
- National Comprehensive Cancer Network. Ovarian Cancer. Version 1.2005. 2004. (www.nccn.org)
- MD Anderson. Epithelial Ovarian Cancer. 1999. (www.mdanderson.org)

DATE RELEASED

2006 Oct

GUIDELINE DEVELOPER(S)

Society of Gynecologic Oncologists of Canada - Disease Specific Society

SOURCE(S) OF FUNDING

Society of Gynecologic Oncologists of Canada

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Initial Panel – March 2005

Clinical Specialists: Laurie Elit, *Chair*, Gynecologic Oncologist, Juravinski Cancer Centre; Peter Craighead, Radiation Oncologist, Tom Baker Cancer Centre, Alberta; Lesa Dawson, Gynecologic Oncologist, Newfoundland Cancer Treatment and Research Foundation; Michael Fung-Kee-Fung, Gynecologic Oncologist, Ottawa Hospital Regional Cancer Centre; Walter Gotlieb, Gynecologic Oncologist, Jewish General Hospital, Québec; Prafull Ghatage, Gynecologic Oncologist, Tom Baker Cancer Centre, Alberta; Robert Lotocki, Gynecologic Oncologist, Cancer Care Manitoba; Dianne Miller, Gynecologic Oncologist, BC Cancer Agency; Joan Murphy, Gynecologic Oncologist, University Health Network, Ontario; Diane Provencher, Gynecologic Oncologist, Hôpital Notre-Dame, Québec, President of GOC; Barry Rosen, Gynecologic Oncologist, University Health Network, Ontario; Réjean Savoie, Gynecologic Oncologist, New Brunswick; Luis Souhami, Radiation Oncologist, Montréal General Hospital, Québec; Gavin Stuart, Gynecologic Oncologist, Dean of Medicine, University of British Columbia; Ken Swenerton, Medical Oncologist, BC Cancer Agency

Methodologists Supporting the Workshop: Melissa Brouwers, Program in Evidence based Care, Cancer Care Ontario; George Browman, Haematologist, CEO Tom Baker Cancer Centre; Ian D. Graham, Health Sociologist, Ottawa Health Research Institute; Louise Zitzelsberger, Research Methodologist, Ottawa Health Research Institute

Observers - Members of the CSCC CPG-AG: Louise Paquet, Québec Guidelines Group, Government of Québec; Jill Petrella, Cancer Care Nova Scotia

Sub-panel Membership - December 2005

Clinical Specialists: Laurie Elit, *Chair*, Gynecologic Oncologist, Juravinski Cancer Centre; Michael Fung-Kee-Fung, Gynecologic Oncologist, Ottawa Hospital Regional Cancer Centre; Prafull Ghatage, Gynecologic Oncologist, Tom Baker Cancer Centre, Alberta; Susie Lau, Gynecologic Oncologist, Jewish General Hospital, Montréal, Quebec; Barry Rosen, Gynecologic Oncologist, University Health Network, Ontario; Ken Swenerton, Medical Oncologist, BC Cancer Agency

Methodologist: Louise Zitzelsberger, Research Methodologist, Ottawa Health Research Institute

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Panel members were asked to complete and sign a conflict of interest declaration which asked them to report their involvement on guideline development groups, as an employee of a guideline development group, or as a consultant for a guideline developer or entity with a commercial interest in any of the guidelines under consideration; whether they had any ownership interests in entities with a commercial interest in the guidelines under consideration, had received research

funding or honoraria from entities with a commercial interest in the guidelines under consideration, or were involved in officially endorsing a guideline. Five panel members had been involved in the authorship of guidelines selected for quality appraisal: two were involved in the British Columbia (BC) Cancer Agency Management Protocol, and three were involved in writing the draft revised Cancer Care Ontario (CCO) #4-3 guideline. Three other panel members had been involved in guideline development, but for guidelines unrelated to the current topic. One panel member had sat on an advisory board with respect to two drugs, liposomal doxorubicin and topotecan, which can be used in the treatment of recurrent ovarian cancer.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Society of Gynecologic Oncologists of Canada.

Print copies: Available from the Society of Gynecologic Oncologists of Canada, 780 Promenade Echo Drive, Ottawa, ON K1S 5R7, Canada; Phone: 1.800.561.2416 Ext. 250

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on July 26, 2007. The information was verified by the guideline developer on July 26, 2007.

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Date Modified: 10/20/2008